

Claim Amendments

1. (currently amended) A beverage bottling plant for filling bottles with a liquid beverage filling material, said beverage bottling plant comprising:

a filling machine being configured to fill empty bottles with liquid beverage filling material;

a conveyer arrangement being configured and disposed to move empty bottles to said filling machine;

said filling machine comprising a rotor having a peripheral portion;

said filling machine defining a vertical axis about which said rotor is configured to rotate;

said beverage filling machine comprising a plurality of beverage filling positions disposed about said peripheral portion of said rotor;

each beverage filling position comprising a beverage filling device for filling bottles with liquid beverage filling material;

each filling device comprising apparatus being configured to introduce a predetermined volume of liquid beverage filling material into the interior of bottles to a substantially predetermined level of liquid beverage filling material;

said apparatus being configured to introduce a predetermined

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volume of liquid beverage filling material comprising apparatus being configured to terminate the filling of beverage bottles upon liquid beverage filling material reaching said substantially predetermined level in bottles;

each filling position comprising a support configured and disposed to maintain a bottle in a predetermined position for filling by a ~~a by a~~ corresponding filling device;

each filling position comprising an arrangement to seal a bottle for filling a bottle with an effervescent beverage;

apparatus being configured to raise and to lower said bottle support and a bottle supported thereby;

said apparatus being configured to raise and lower said bottle support comprising:

a rod having a first, lower, end and a second, upper, end remote from said lower end;

said lower end of said rod being secured to said rotor of said filling machine;

a cylinder having a longitudinal axis and having outer and inner walls disposed about the longitudinal cylinder axis;

said inner cylinder wall being configured and disposed to slide on said rod to permit up-and-down movement of said

cylinder;

said cylinder having a first, upper, end and a second, lower, end remote from said upper end of said cylinder;

said bottle support being secured to said upper end of said cylinder to permit raising and lowering of said bottle support and a bottle supported thereby;

a collar secured to said lower end of said cylinder;

a first, upper, stop structure secured to said rotor of said filling machine adjacent said upper end of said rod;

said cylinder outer wall being configured to slide within said upper stop structure;

a second, lower, stop structure operatively connected to said upper stop structure and being configured and disposed to slide on said outer cylinder wall;

a spring disposed between said upper stop structure and said lower stop structure and being configured to be compressed between said upper stop structure and said lower stop structure;

said rod comprising a longitudinal bore configured to permit passage of a pressure medium from said lower end of said rod into said cylinder;

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said cylinder being configured to be raised by a first, lower, pressure of a pressure medium passing through said longitudinal bore of said rod and thus raising said bottle support and a bottle supported thereby to a first, lower, position being a position in which a bottle is disposed remote from said seal arrangement which lower position is configured for filling of a bottle with a still beverage;

said cylinder being configured to be raised by a second pressure, being a pressure higher than the first pressure, of a pressure medium passing through said longitudinal bore of said rod and thus raising said bottle support and a bottle supported thereby to a second, higher, position being a position in which a bottle is sealed to said sealing arrangement which higher position is configured for filling of a bottle with an effervescent beverage;

said collar being configured to be disposed against said lower stop structure to maintain said bottle support and a bottle supported thereby in the lower position upon the lower pressure being applied in said cylinder;

said spring being configured and disposed to be compressed between said upper stop structure and said lower

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stop structure by said collar upon the higher pressure being applied in said cylinder to permit raising of said bottle support and a bottle supported thereby to the higher position.

2. (original) The beverage bottling plant for filling bottles with a liquid beverage filling material according to claim 1, wherein:

said spring comprises at least one coil spring.

3. (original) The beverage bottling plant for filling bottles with a liquid beverage filling material according to claim 2, wherein:

said at least one coil spring comprises one of: plastic and, metal.

4. (original) A beverage bottling plant for filling bottles with a liquid beverage filling material, said beverage bottling plant comprising:

a filling machine being configured to fill empty bottles with liquid beverage filling material;

a conveyer arrangement being configured and disposed to move empty bottles to said filling machine;

said filling machine comprising a rotor having a peripheral

portion;

said filling machine defining a vertical axis about which said rotor is configured to rotate;

said beverage filling machine comprising a plurality of beverage filling positions disposed about said peripheral portion of said rotor;

each beverage filling position comprising a beverage filling device for filling bottles with liquid beverage filling material;

each filling device comprising apparatus being configured to introduce a predetermined volume of liquid beverage filling material into the interior of bottles to a substantially predetermined level of liquid beverage filling material;

said apparatus being configured to introduce a predetermined volume of liquid beverage filling material comprising apparatus being configured to terminate the filling of beverage bottles upon liquid beverage filling material reaching said substantially predetermined level in bottles;

each filling position comprising a support configured and disposed to maintain a bottle in a predetermined position for filling a by a corresponding filling device;

apparatus being configured to raise and to lower said bottle support and a bottle supported thereby, said lifting apparatus

comprising:

a chamber configured to receive a pressure medium;

a stop structure being configured to permit a plurality of stroke lengths of said lifting apparatus depending upon the pressure exerted by the pressure medium in said chamber to raise said bottle support and a bottle supported by said bottle support, adjacent a filling device, to at least two predetermined levels.

5. (original) The beverage bottling plant according to claim 4, comprising:

a conduit, for the pressure medium, which conduit is connected to said chamber configured to receive a pressure medium.

6. (original) The beverage bottling plant according to claim 5, comprising:

a biasing member operatively connected to said stop structure;

said stop structure is configured and disposed to compress said biasing member to permit raising of said bottle support and a bottle supported thereby to at least two predetermined levels.

7. (original) The beverage bottling plant according to claim 6,
wherein:

said stop structure comprises a structure configured to receive
said biasing member.

8. (original) The beverage bottling plant according to claim 7,
wherein:

said chamber is configured to receive a first pressure of the
pressure medium to raise said bottle support and a bottle supported
thereby to a first level and to receive a second, higher, pressure of
the pressure medium to raise said bottle support and a bottle
supported thereby to a second, higher, level.

9. (original) The beverage bottling plant according to claim 8,
wherein:

said biasing member comprises at least one of: (a) and (b),
wherein (a) and (b) comprise:

(a) a spring; and

(b) a structure configured to be actuated by at least one
of: a hydraulic pressure and a pneumatic pressure.

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10. (original) The beverage bottling plant according to claim 9,
wherein:

said spring comprises at least one coil spring.

11. (original) The beverage bottling plant according to claim 10,
wherein:

said stop structure is configured to contain at least a portion of
said at least one coil spring.

12. (original) The beverage bottling plant according to claim 11,
wherein:

said at least one coil spring comprises one of: plastic and,
metal.

13. (currently amended) A container filling plant container lifting
apparatus configured to raise and to lower a container support and a
container supported thereby in a container filling machine having a
plurality of filling elements, said lifting apparatus comprising:

a chamber being configured to receive ~~a pressure medium~~; a
first pressure of a pressure medium to raise said container support
and a container supported thereby to a first level;

said chamber being configured to receive a second pressure of the pressure medium to raise said container support and a container supported thereby to a second level;

said first pressure being different from said second pressure, and said first level being different from said second level; and

a stop structure being configured to permit a plurality of different stroke lengths of said lifting apparatus depending upon the pressure exerted by the pressure medium in said chamber to raise said container support and a container supported by said container support, adjacent a filling element, to at least two predetermined levels.

14. (currently amended) The container filling plant container lifting apparatus according to claim 21 ~~43~~, wherein:

said second pressure is higher than said first pressure; and

said lifting apparatus comprises a conduit, for a pressure medium, which conduit is connected to said chamber configured to receive a pressure medium.

15. (original) The container filling plant container lifting apparatus according to claim 14, comprising:

a biasing member operatively connected to said stop structure;
said stop structure is configured and disposed to compress said biasing member to permit raising of said container support and a container supported thereby to at least two predetermined levels.

16. (original) The container filling plant container lifting apparatus according to claim 15, wherein:

said stop structure comprises a structure configured to receive said biasing member.

17. (canceled)

18. (currently amended) The container filling plant container lifting apparatus according to claim ~~47~~ 16, wherein:

said biasing member comprises at least one of: (a) and (b), wherein (a) and (b) comprise:

(a) a spring; and

(b) a structure configured to be actuated by at least one of: a hydraulic pressure and a pneumatic pressure.

19. (original) The container filling plant container lifting

apparatus according to claim 18, wherein:

said spring comprises at least one coil spring.

20. (original) The container filling plant container lifting apparatus according to claim 19, wherein:

said stop structure is configured to contain at least a portion of said at least one coil spring;

said at least one coil spring comprises one of: plastic and, metal.

21. (new) The container filling plant container lifting apparatus according to claim 13, wherein:

said chamber is configured to receive the first pressure of the pressure medium to raise said container support and a container supported thereby to said first level to dispose a mouth of the container a distance from a filling element for a counterpressure-free, free jet filling of the container; and

said chamber is configured to receive the second pressure of the pressure medium to raise said container support and a container supported thereby to said second level to dispose a mouth of the container in sealed contact with a filling element for a

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counterpressure filling of the container.